6.5 Usage Diagrams

The following diagrams pertain to LEC interconnection and customer notification, record exchange and bill verification in a facility-based environment.

While the industry recognizes that settlement plans between LECs are used, these are state or contract specific and are not included in the MECAB guidelines.

Current meet-point billing arrangements may exist where the tandem company is also the bill rendering company. Contracts may need to be renegotiated so that all participating companies consent to one or more compatible billing arrangements in a facility-based environment.

Until the industry has resolved OBF Billing Issue 1182, which is the identity of all entities from originating to terminating point, it may not be possible to identify all facility-based providers. Companies that do not record need to make the applicable negotiations to obtain the records needed for them to render bills or perform bill verification.

Due to the inconsistencies in where companies perform recordings, these diagrams do not reflect a designated point of recording for LEC to LEC traffic. Companies that do not record need to negotiate a process to obtain the records needed for them to render bills or perform bill verification.

For IXC originating traffic, the originating end office switch generates the official record for billing. For IXC terminating traffic, the first point of switching into the LEC network (tandem, end office, or MSC switch) generates the official record for billing. For originating 800/8XX traffic the SSP switch generates the official record for billing.

6. USAGE AND DATA EXCHANGE

6.1 General

Providers may bill directly from their recordings. For Usage-Sensitive services under MPB, the exchange of usage data among providers, where recording capabilities do not exist, plays a critical role in providing the customer with an accurate, timely, and auditable bill. Various providers can be involved in recording the usage data for a single End Office location depending on the network architecture, type of office, type of service, and type of traffic. Regardless of the MPB option selected and where contractual relationships exist, the detailed usage records should be passed to the other provider(s) to process. Each provider is responsible to apply factors where appropriate and produce billable usage information. See Section 14 for usage applications involving ULECs.

When providers do not have detailed recordings available for billing the IXC, the official recording company will provide the detailed usage record based on contractual relationships.

The official recording company is defined as the following:

1. The end office company for originating traffic
2. The end office company for terminating direct routed traffic
3. The tandem company for terminating tandem routed traffic
4. The SSP company for originating 800 traffic

For local/intraLATA toll/wireless, each company generates their official recording. However, for 800 traffic, the SSP office owner is the official recording company.

6.2 Paper Exchange

Until conversion to billing non-common minutes of use between providers is implemented see Issue 6, Section 6.2 of the MECAB document.

6.3 Mechanized Usage Exchange

The ATIS Exchange Message Interface (EMI) document provides mechanized record formats that can be used to exchange usage information among providers. Category *11-0X* series Access Usage Records (AURs) are used to exchange detailed usage information when recording capabilities do not exist and the provider has contractual relationships for receipt of their records with another provider. These records are forwarded on a daily basis or any other agreed upon timeline. Usage data should be validated by the receiving provider, to ensure accuracy.

6.3.1 Return Codes

Instances may exist where usage data received from the provider is inaccurate or incomplete. In these cases, the data may be returned by the receiving company. The EMI document (Section 4) has a list of valid return codes and valid values for Indicator 3.

While "00" and "09" are valid return code values, companies are encouraged to use more descriptive return code values.

Guidelines for returning data to the provider are as follows:

6.5.14 Originating Local and IntraLATA Toll

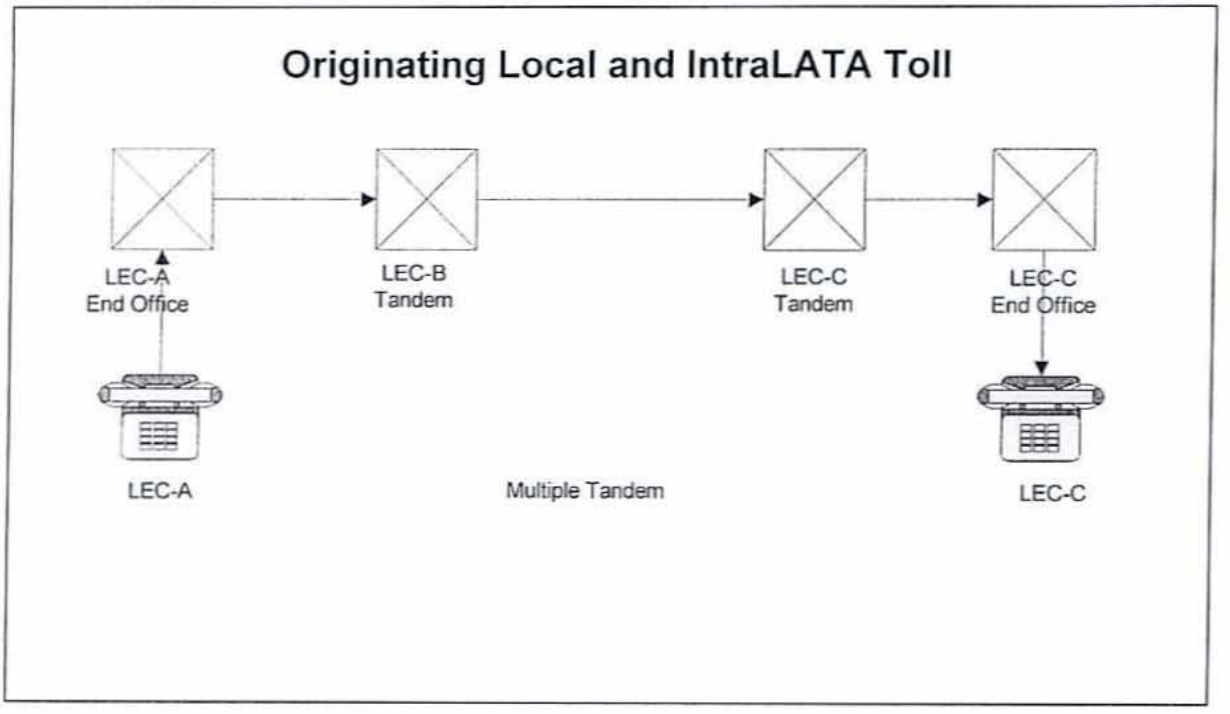

Figure 6-14 - Common trunk group between access tandems (this is a FGC inter-toll trunk)

Notification Information
The LEC-B tandem owner will provide LEC interconnection notification information to LEC-A and LEC-C. LEC-B and LEC-C will send customer notification to LEC-A. These notifications will be in accordance with Section 5.

Record Exchange
Record exchange will not be required. When compensation does exist, each company should use their own recordings for billing.

Companies who do not have recordings may have contractual relationships for receipt of records.

In lieu of recordings where compensation does exist, alternate methods and associated data (e.g. flat rate, etc.) may be developed and shared between companies.

Bill Verification
The originating record generated by LEC-A and the customer notification information received from LEC-B and LEC-C will fulfill the verification requirements for LEC-A. Verification may include billing for transit charges (LEC-B), and termination charges (LEC-C).

Companies who do not have recordings may have contractual relationships for receipt of their records.

6.5.15 Terminating Local and IntraLATA Toll

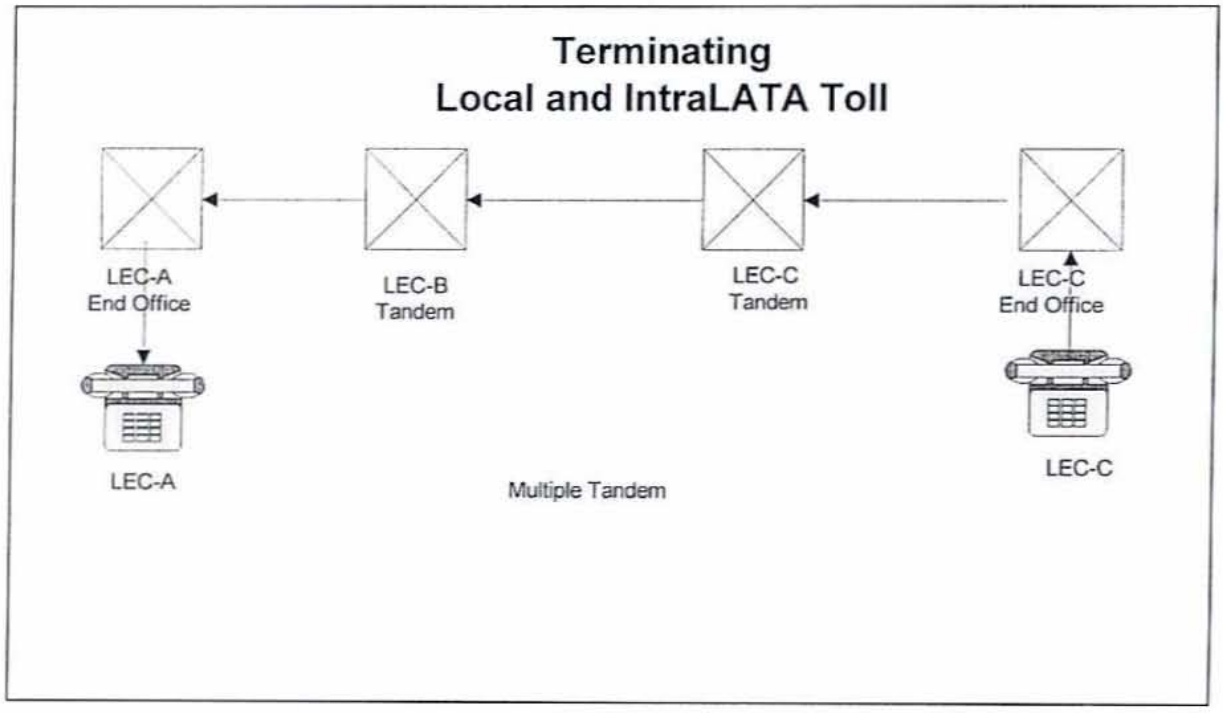

Figure 6-15 - Common trunk group between access tandems (this is a FGC inter-toll trunk)

Notification Information
The LEC-B tandem owner will provide the interconnection information to LEC-A and LEC-C. In addition, customer notification would be required by LEC-A and LEC-B to LEC-C. These notifications will be in accordance with Section 5.

Record Exchange
In a tandem-to-tandem, single trunk arrangement, record exchange will be required from LEC-C to LEC-B. LEC-A should have their own recording.

Companies who do not have recordings may have contractual relationships for receipt of records.

In lieu of recordings where compensation does exist, alternate methods and associated data (e.g. T/O ratio, flat rate, etc.) may be developed and shared between companies.

Bill Verification
The originating record generated by LEC-C and the customer notification information received from LEC-B and LEC-A will fulfill the verification requirements for LEC-C. Verification may include billing for transit charges (LEC-B) and termination charges (LEC-A).

Companies who do not have recordings may have contractual relationships for receipt of their records.

6.5.16 Originating Local and IntraLATA Toll

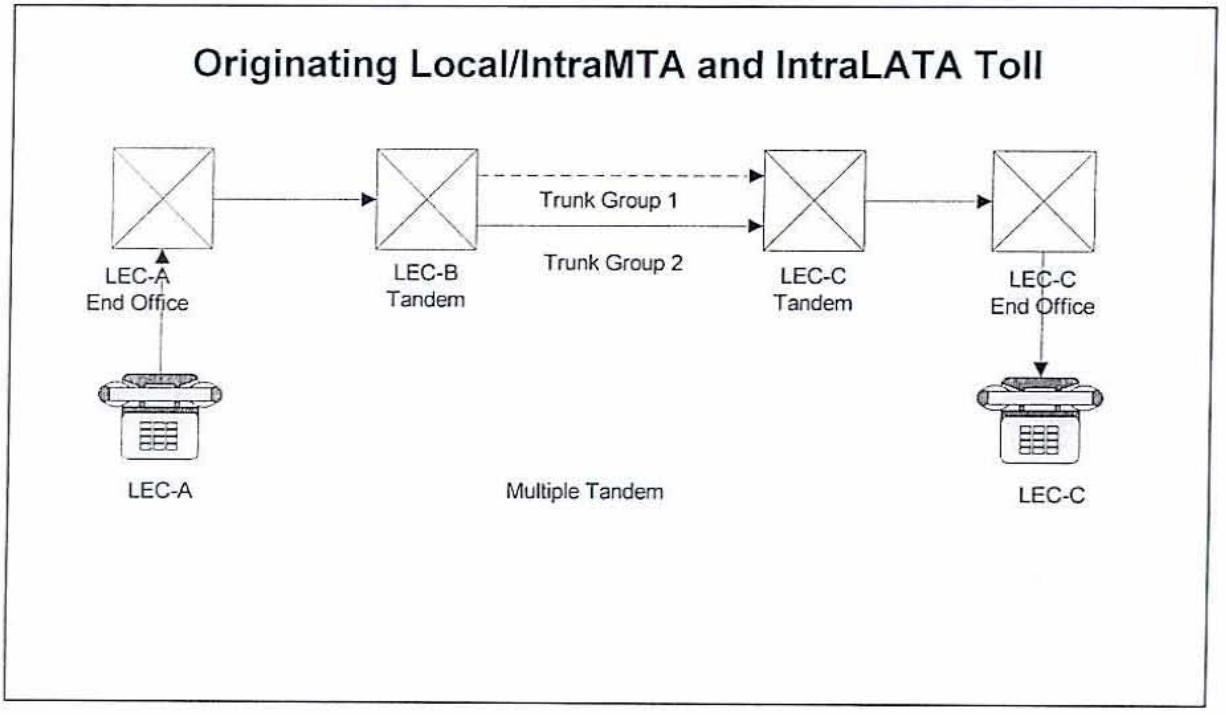

Figure 6-16 - Multiple trunk groups between tandems. Trunk group 1 is LEC-B to LEC-C traffic only (for this diagram Trunk group 1 is not used). Trunk group 2 is FGD/ATC recording trunk group for all other LEC traffic (LEC-A to LEC-C).

Notification Information
The LEC-B tandem owner will provide LEC interconnection notification information to LEC-A and LEC-C. LEC-B and LEC-C will send customer notification to LEC-A. These notifications will be in accordance with Section 5.

Record Exchange
Record exchange is not required between LEC-B and LEC-C because LEC-C has their own end office recording. When compensation does exist, each company should use their own recordings for billing.

Companies who do not have recordings may have contractual relationships for receipt of records.

In lieu of recordings where compensation does exist, alternate methods and associated data (e.g. flat rate, etc.) may be developed and shared between companies.

Bill Verification
The originating record generated by LEC-A and the customer notification information received from LEC-B and LEC-C will fulfill the verification requirements for LEC-A. Verification may include billing for transit charges (LEC-B), and termination charges (LEC-C).

Companies who do not have recordings may have contractual relationships for receipt of their records.

6.5.17 Terminating Local and IntraLATA Toll

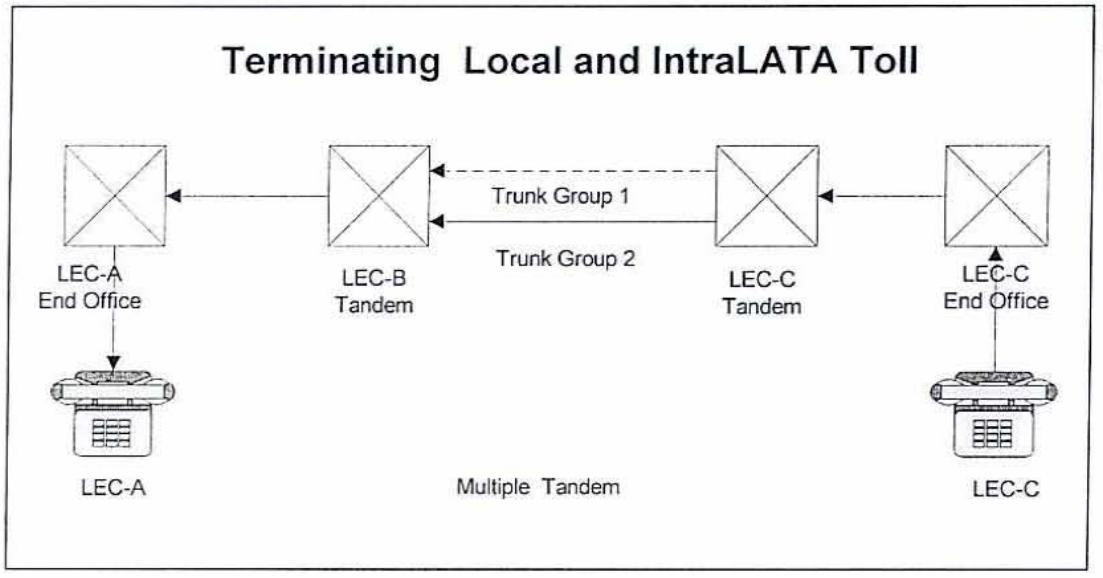

Figure 6-17 - Terminating Local and IntraLATA Toll. Multiple trunk groups between access tandems. Trunk group 1 is LEC-C to LEC-B common group, trunk group 2 is a FGD/ATC recording trunk group for all other LEC traffic (not used in this diagram).

Notification Information
The LEC-B tandem owner will provide LEC interconnection notification information to LEC-A and LEC-C. In addition, customer notification would be required by LEC-A and LEC-B to LEC-C. These notifications will be in accordance with Section 5.

Record Exchange
In a tandem to tandem, multi trunk arrangement, record exchange will not be required from LEC-C to LEC-B because LEC-B knows that all traffic is from LEC-C. LEC-A should have their own recordings.

When compensation does exist, each company should use their own recordings for billing.

Companies who do not have recordings may have contractual relationships for receipt of records.

In lieu of recordings where compensation does exist, alternate methods and associated data (e.g. T/O ratio, flat rate, etc.) may be developed and shared between companies.

Bill Verification
The originating record generated by LEC-C and the customer notification information received from LEC-B and LEC-A will fulfill the verification requirements for LEC-C. Verification may include billing for transit charges (LEC-B) and termination charges (LEC-A).

Companies who do not have recordings may have contractual relationships for receipt of their records.

6.5.18 Originating Local and IntraLATA Toll

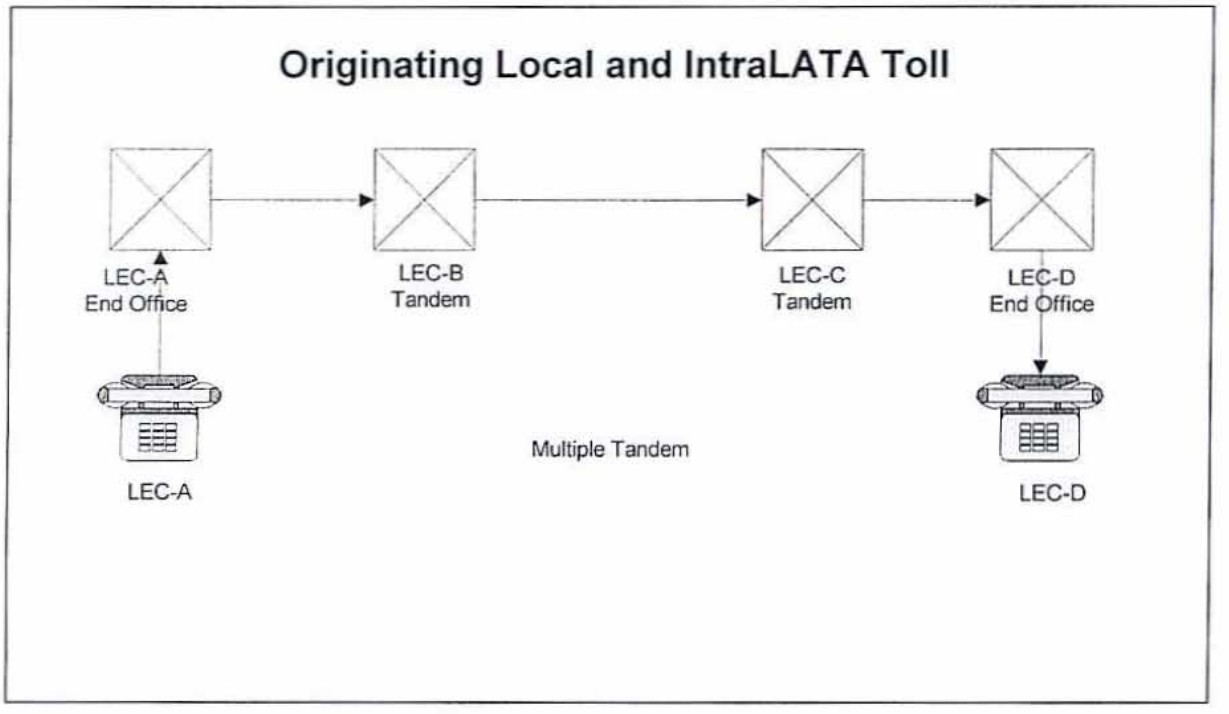

Figure 6-18 - Common trunk group between access tandems (this is a FGC inter-toll trunk)

Notification Information
The LEC-B tandem owner will provide LEC interconnection notification information to LEC-A and LEC-C. The LEC-C tandem owner will provide LEC interconnection notification information to LEC-B and LEC-D. LEC-B, LEC-C and LEC-D will send customer notification to LEC-A. These notifications will be in accordance with Section 5.

Record Exchange
Record exchange will be required from LEC-B to LEC-C. When compensation does exist, LEC-A, LEC-B and LEC-D should use their own recordings for billing.

Companies who do not have recordings may have contractual relationships for receipt of records.

In lieu of recordings where compensation does exist, alternate methods and associated data (e.g. flat rate, etc.) may be developed and shared between companies.

Bill Verification
The originating record generated by LEC-A and the customer notification information received from LEC-B and LEC-D will fulfill the verification requirements for LEC-A. Verification may include billing for transit charges (LEC-B and LEC-C), and termination charges (LEC-D).

LEC-C may have their switch records to validate any billing they receive from LEC-D.

Companies who do not have recordings may have contractual relationships for receipt of their records.

6.5.19 Terminating Local and IntraLATA Toll

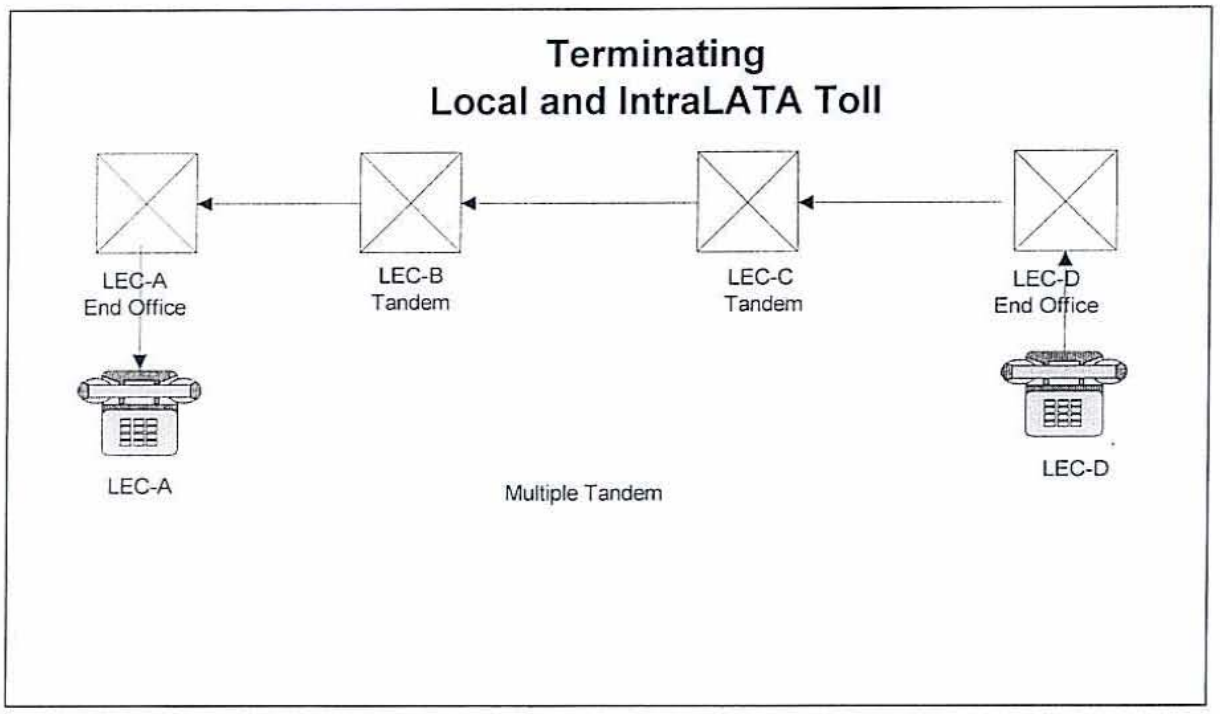

Figure 6-19 - Common trunk group between access tandems (this is a FGC inter-toll trunk)

Notification Information
The LEC-C tandem owner will provide the interconnection information to LEC-B and LEC-D. The LEC-B tandem owner will provide the interconnection information to LEC-A and LEC-C. In addition, customer notification would be required from LEC-A, LEC-B and LEC-C to LEC-D. These notifications will be in accordance with Section 5.

Record Exchange
In a tandem to tandem, single trunk arrangement, record exchange will be required from LEC-C to LEC-B. LEC-A, LEC-C and LEC-D should have their own recordings.

Companies who do not have recordings may have contractual relationships for receipt of records.

In lieu of recordings where compensation does exist, alternate methods and associated data (e.g. T/O ratio, flat rate, etc.) may be developed and shared between companies.

Bill Verification
The originating record generated by LEC-D and the customer notification information received from LEC-A, LEC-B and LEC-C will fulfill the verification requirements for LEC-D. Verification may include billing for transit charges (LEC-B and LEC-C) and termination charges (LEC-A).

LEC-B and LEC-C may have their switch records to validate any billing they may receive from LEC-A.

Companies who do not have recordings may have contractual relationships for receipt of their records.

6.5.20 Originating Local/IntraMTA and IntraLATA Toll

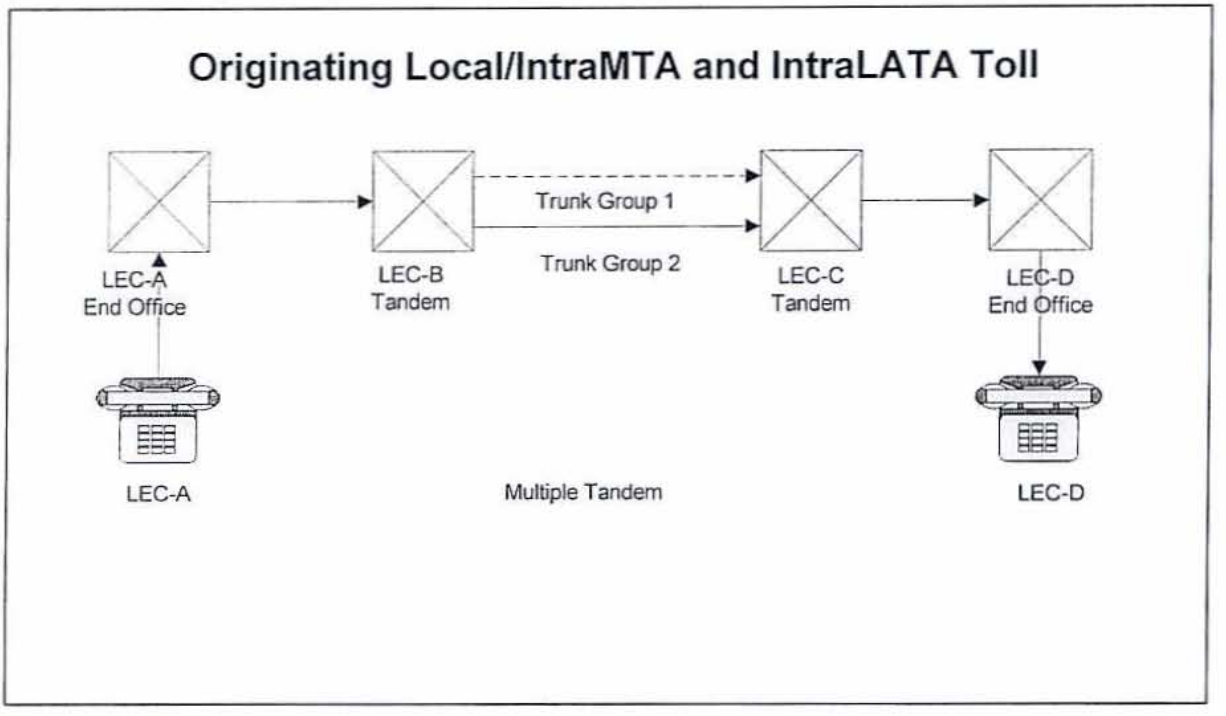

Figure 6-20 – Multiple trunk groups between tandems. Trunk group 1 is LEC-B to LEC-C traffic only (for this diagram Trunk group 1 is not used). Trunk group 2 is FGD/ATC recording trunk group for all other LEC traffic (LEC-A to LEC-C or LEC-D).

Notification Information
The LEC-B tandem owner will provide LEC interconnection notification information to LEC-A and LEC-C. LEC-C will provide LEC interconnection notification information to LEC-B and LEC-D. In addition, LEC-B, LEC-C and LEC-D will send customer notification to LEC-A. These notifications will be in accordance with Section 5.

Record Exchange
Record exchange will be required from LEC-B to LEC-C. When compensation does exist, LEC-A, LEC-B and LEC-D should use their own recordings for billing.

Companies who do not have recordings may have contractual relationships for receipt of records.

In lieu of recordings where compensation does exist, alternate methods and associated data (e.g. flat rate, etc.) may be developed and shared between companies.

Bill Verification
The originating record generated by LEC-A and the customer notification information received from LEC-B, LEC-C and LEC-D will fulfill the verification requirements for LEC-A. Verification may include billing for transit charges (LEC-B and LEC-C), and termination charges (LEC-D).

LEC-C may have their switch records to validate any billing they may receive from LEC-D.

Companies who do not have recordings may have contractual relationships for receipt of their records.

6.5.21 Terminating Local/IntraMTA and IntraLATA Toll

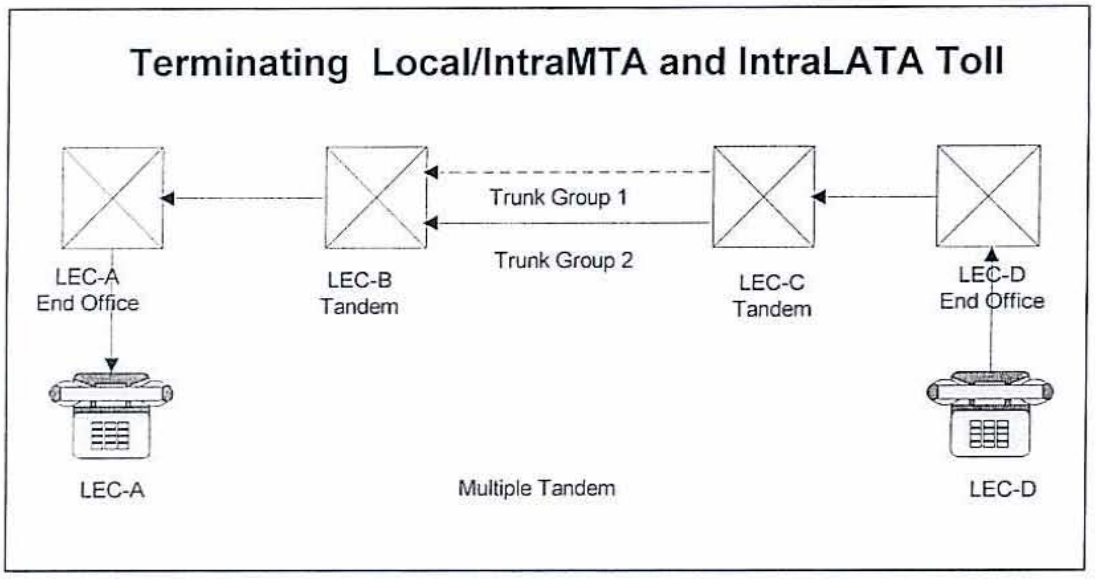

Figure 6-21- Terminating Local and IntraLATA Toll. Multiple trunk groups between tandems. Trunk group 1 is LEC-C to LEC-B common group (not used in this diagram). Trunk group 2 is a FGD/ATC recording trunk group for all other LEC traffic (LEC-D to LEC-B or LEC-A).

Notification Information
The LEC-C tandem owner will provide the interconnection information to LEC-B and LEC-D. The LEC-B tandem owner will provide the interconnection information to LEC-A and LEC-C. In addition, customer notification would be required from LEC-A, LEC-B and LEC-C to LEC-D. These notifications will be in accordance with Section 5.

Record Exchange
In a tandem to tandem, multi-trunk arrangement, record exchange will be required from LEC-C to LEC-B because LEC-B cannot identify LEC-D traffic. LEC-A, LEC-C and LEC-D should have their own recordings.

Companies who do not have recordings may have contractual relationships for receipt of records.

In lieu of recordings where compensation does exist, alternate methods and associated data (e.g. T/O ratio, flat rate, etc.) may be developed and shared between companies.

Bill Verification
The originating record generated by LEC-D and the customer notification information received from LEC-A, LEC-B and LEC-C will fulfill the verification requirements for LEC-D. Verification may include billing for transit charges (LEC-B and LEC-C) and termination charges (LEC-A).

LEC-B and LEC-C may have their switch records to validate any billing they may receive from LEC-A.

Companies who do not have recordings may have contractual relationships for receipt of their records.